ATGAAGACAACCATTATTTTGATACTACTGACCCATTGGGTCTACAGTCAAAACCCAACCAGTGGCAAC
AACACAGCCACATTATGTCTGGGACACCATGCAGTAGCAAATGGAACATTGGTAAAAACAATAACTGAT
GACCAAATTGAGGTGACAAATGCTACTGAATTAGTCCAGAGCATTTCAATAGGGAAAATATGCAACAAC
TCATATAGGGTTCTAGATGGAAGAAATTGCACATTAATAGATGCAATGCTAGGAGACCCCCATTGTGAT
GATTTTCAGTATGAGAATTGGGACCTCTTCATAGAAAGAAGCAGCGCTTTCAGCAATTGCTACCCATAT
GACATCCCTGACTATGCATCGCTCCGGTCCATTGTAGCATCCTCAGGAACATTAGAATTCACAGCAGAG
GGCTTCACATGGACAGGTGTCACTCAAAACGGAAGAAGTGGAGCCTGCAAAAGGGGATCAGCCGATAGT
TTCTTTAGCCGACTGAATTGGCTAACAAAATCTGGAAATTCTTACCCCATATTGAATGTGACAATGCCT
AACAATAAAAATTTCGATAAACTATACATCTGGGGGATTCATCACCCGAGCTCAAACAAAGAGCAGACA
AAATTATATATCCAAGAATCAGGACGAGTAACAGTCTCAACAGAAAGAAGTCAACAAACAGTAATCCCT
AACATCGGATCTAGGCCGTGGGTCAGGGGTCAATCAGGCAGGATAAGCATATACTGGACCATTGTAAAA
CCTGGAGATATTCTAATGATAAACAGTAATGGCAACTTAGTTGCACCGCGGGGATATTTTAAATTGAGA
ACAGGGAAAAGCTCTGTAATGAGATCAGATGCACTCATAGACACTTGTGTGTCTGAATGTATTACACCA
AATGGAAGCATCCCCAACGACAAACCATTTCAAAATGTGAACAAAATTACATATGGAAAATGCCCCAAG
TATATCAGGCAAAACACTTTAAAGCTGGCCACTGGGATGAGGAATGTACCAGAAAAGCAAATCAGAGGA
ATCTTTGGAGCAATAGCGGGATTCATAGAAAACGGCTGGGAAGGAATGGTTGATGGGTGGTATGGATTC
CGATATCAAAACTCGGAAGGAACAGGACAAGCTGCAGATCTAAAGAGCACTCAAGCAGCCATAGACCAG
ATCAATGGAAAATTAAACAGAGTGATTGAAAGGACCAATGAGAAATTCCATCAAATAGAAAAGGAATTC
TCAGAAGTAGAAGGGAGAATCCAGGATTTGGAGAAGTATGTAGAAGACACCAAAATAGACCTATGGTCC
TACAATGCAGAATTGCTGGTGGCTCTAGAAAATCAACATACAATTGACTTAACAGATGCAGAAATGAAT
AAATTATTCGAGAAGACTAGGCGCCAGTTAAGAGAAAACGCGGAAGACATGGGAGGTGGATGTTTCAAG
ATTTACCACAAATGTGATAATGCATGCATTGGATCAATAAGAAATGGGACATATGACCATTACATATAC
AGAGATGAAGCATTAAACAACCGATTTCAAATCAAAAGTGTTGAGTTGAAATCAGGCTACAAAGATTGG
ATACTGTGGATTTCATTCGCCATATCATGCTTCTTAATTTGCGTTGTTCTATTGGGTTTCATTATGTGG
GCTTGCCAAAAAGGCAACATCAGGTGCAACATTTGCATTTGA

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FIGURE 1

ATGAAGACAACCATTATTTTGATACTACTGACCCATTGGGTCTACAGTCAAAACCCAACCAGTGGCAA
CAACACAGCCACATTATGTCTGGGACACCATGCAGTAGCAAATGGAACATTGGTAAAAACAATAACTG
ATGACCAAATTGAGGTGACAAATGCTACTGAATTAGTTCAGAGCATTTCAATAGGGAAAATATGCAAC
AACTCATATAGAGTTCTAGATGGAAGAAATTGCACATTAATAGATGCAATGCTAGGAGACCCCCACTG
TGATGTCTTTCAGTATGAGAATTGGGACCTCTTCATAGAAAGAAGCAGCGCTTTCAGCAATTGCTACC
CATATGACATCCCTGACTATGCATCGCTCCGGTCCATTGTAGCATCCTCAGGAACATTGGAATTCACA
GCAGAGGGATTCACATGGACAGGTGTCACTCAAAACGGAAGAAGTGGAGCCTGCAAAAGGGGATCAGC
CGATAGTTTCTTTAGCCGACTGAATTGGCTAACAAAATCTGGAAACTCTTACCCCACATTGAATGTGA
CAATGCCTAACAATAAAAATTTCGACAAACTATACATCTGGGGGATTCATCACCCGAGCTCAAACCAA
CAGCAAACAGAATTGTACATCCAAGAATCAGGACGAGTAACAGTCTCAACAAAAAGAAGTCAACAAAC
GATAATCCCTAATATCGGATCTAGACCGTGGGTCAGGGGTCAATCAGGCAGGATAAGCATATACTGGA
CCATTGTAAAACCTGGAGATATCCTAATGATAAACAGTAATGGCAACTTAGTTGCACCGCGGGGATAT
TTTAAAATTGAAAACAGGGAAAAGCTCTGTAATGAGATCAGATGCACCCATAGACATTTGTGTGTCTGA
ATGTATTACACCAAATGGAAGCATCCCCAACGACAAACCATTTCAAAATGTGAACAAAGTTACATATG
GAAAATGCCCCAAGTATATCAGGCAAAACACTTTAAAGCTGGCCACTGGGATGAGGAATGTACCAGAA
AAGCAAATCAGAGGAATCTTTGGAGCAATAGCGGGATTCATAGAAAACGGCTGGGAAGGAATGGTTGA
TGGGTGGTATGGATTCCGATATCAAAACTCGGAAGGAACAGGACAAGCTGCAGATCTAAAGAGCACTC
AAGCAGCCATCGACCAGATTAATGGAAAATTAAACAGAGTGATTGAAAGGACCAATGAGAAATTCCAT
CAAATAGAGAAGGAATTCTCAGAAGTAGAAGGGAGAATCCAGGACTTGGAGAAGTATGTAGAAGACAC
CAAAATAGACCTATGGTCCTACAATGCAGAATTGCTGGTGGCTCTAGAAAATCAACATACAATTGACT
TAACAGATGCAGAAATGAATAAATTATTCGAGAAGACTAGACGCCAGTTAAGAGAAAACGCGGAAGAC
ATGGGAGGTGGATGTTTCAAGATTTACCACAAATGTGATAATGCATGCATTGGATCAATAAGAAATGG
GACATATGACCATTACATATACAGAGATGAAGCATTAAACAACCGATTTCAAATCAAAGGTGTTGAGT
TGAAATCAGGCTACAAAGATTGGATACTGTGGATTTCATTCGCCATATCATGCTTCTTAATTTGCGTT
GTTCTATTGGGTTTCATTATGTGGGCTTGCCAAAAAGGCAACATCAGATGCAACATTTGCATTTGA

SEQ ID NO:5

FIGURE 2

ATGAACCCAAATCAAAAGATAATAACAATTGGATCTGCATCATTAGGAGTACTAATCCTCAAGGTCATT

CTCCATGTAGTCAGCATTATAGTAACAGTACTGGTTCTCAATAACAATGGAACAGGTCTGAACTGCAAC

GGGACGATCATAAGAGAGTACAATGAAACAGTAAGAGTAGAAAGAATCACCCAATGGTATAATACTAGT

ACAATTGAGTACATAGAAAGATCTTCAAATGAATACTACATGAACAACACCGAACCACTTTGTGAGGCC

CAGGGCTTTGCACCATTTTCCAAAGACAATGGAATACGAATTGGGTCGAGAGGCCATGTTTTTGTAATA

AGAGAACCTTTTGTATCATGTTCGCCCTCAGAATGTAGAACCTTTTTCCTCACACAGGGCTCATTACTC

AATGACAAACATTCTAACGGCACAGTGAAGGACCGAAGTCCATATAGGACTTTGATGAGTGTCAAAATA

GGGCAATCACCTAATGTGTATCAAGCTAGGTTTGAATCGGTGGCATGGTCAGCAACAGCATGCCATGAT

GGAAAAAAATGGATGACAGTTGGAGTCACAGGGCCCGACAATCAAGCAGTTGCAGTAGTGAACTATGGA

GGTGTTCCGGTTGATATTATTAATTCATGGGCATGGGATATCTTAAGAACCCAAGAATCGTCATGCACC

TGCATTAAAGGAGACTGTTATTGGGTGATGACTGATGGACCGGCAAACAGGCAAGCTAAATATAGGATA

TTCAAAGCAAAAAATGGAAGAATAATTGGGCAGACTGATATAAGTTTCAATGGGGGACACATAGAGGAG

TGTTCTTGTTACCCCAATGAAGGGAAGGTGGAATGCATATGCAGGGACAACTGGACTGGAACAAATAGA

CCAATTCTGGTAATATCTTCTGATCTATCGTACACAGTCGGATATTTGTGTGCTGGCATTCCCACTGAC

ACTCCTAGGGGAGAGGATAGTCAATTCACAGGCTCATGTACAAGCCCTTTGGGAAATAAAGGATACGGT

GTAAAAGGTTTCGGGTTTCGACAAGGAACTGACGTATGGGCCGGAAGGACAATTAGTAGGACTTCAAGA

TCAGGATTCGAAATAATAAAGATCAGGAATGGTTGGACACAGAATAGTAAAGATCAAATCAGAAGGCAA

GTGATTATTGATAACCTAAATTGGTCAGGATATAGCGGTTCTTTCACATTGCCGGTTGAACTAACAAAA

AAGGGATGTTTAGTCCCCTGTTTCTGGGTTGAAATGATTAGAGGTAAACCTGAAGAAACAACAATATGG

ACCTCTAGCAGCTCCATTGTGATGTGTGGAGTAGATCATAAAGTTGCCAGTTGGTCATGGCACGATGGA

GCTATTCTTCCCTTTGACATCGATAAGATGTAA

SEQ ID NO:8

FIGURE 3

ATGAATCCAAATCAAAAGATAATAACAATTGGATCTGCATCATTGGGAATATTAATCATCAACGTCATT

CTCCATGTAGTCAGCATTATAGTAACAGTACTGGTCCTCAATAACAATGGAACAGGTCTGAACTGCAAA

GGGACGATCATAAGAGAGTACAATGAAACAATAAGAGTAGAAAGAATTACTCAATGGTATAATACCAGT

ACAATTGAGTACATAGAGAGACCTTCAAATGAATACTACATGAACAACACCGAACCACTTTGTGAGGCC

CAAGGCTTTGCACCATTTTCCAAAGATAATGGAATACGAATTGGGTCGAGAGGCCATGTTTTTTGTAATA

AGAGAACCTTTTGTCTCATGTTCGCCCTCAGAATGTAGAACCTTTTTCCTCACACAGGGCTCATTACTC

AATGACAAACATTCTAACGGCACAGTGAAGGACCGAAGTCCATATAGGACTTTGATGAGTGTCAAAATA

GGGCAATCACCTAATGTGTATCAAGCTAGGTTTGAATCGGTGGCATGGTCAGCAACAGCATGCCATGAT

GGAAAAAAATGGATGACAGTTGGAGTCACAGGGCCCGATAATCAAGCAATTGCAGTAGTGAACTATGGA

GGTGTTCCGGTTGATATTATTAATTCATGGGCAGGGGATATCTTAAGAACCCAAGAATCGTCATGCACC

TGCATTAAAGGAGACTGTTATTGGGTGATGACTGATGGACCGGCAAATAGGCAAGCTAAATATAGGATA

TTCAAAGCAAAAGATGGAAGAATAATTGGGCAGACTGATATAAGTTTCAATGGGGGACACATAGAGGAG

TGTTCTTGTTACCCCAATGAAGGGAAGGTGGAATGCATATGCAGGGACAACTGGACTGGAACAAATAGA

CCAATTCTGGTAATATCTTCTGATCTATCGTACACAGTCGGATATTTGTGTGCTGGCATTCCCACTGAC

ACTCCTAGGGGAGAGGATAGTCAATTCACAGGCTCATGTACAAGTCCTTTGGGAAATAAAGGATACGGT

GTAAAAGGTTTCGGGTTTCGACAAGGAACTGACGTATGGGCCGGAAGGACAATTAGTAGGACTTCAAGA

TCAGGATTCGAAATAATAAAAATCAGGAATGGTTGGACACAGAACAGTAAAGACCAAATCAGAAGGCAA

GTGATTATTGATAACCCAAATTGGTCAGGATATAGCGGTTCTTTCACATTGCCGGTTGAACTAACAAAA

AAGGGATGTTTAGTCCCCTGTTTCTGGGTTGAAATGATTAGAGGTAAACCTGAAGAAACAACAATATGG

ACCTCTAGCAGCTCCATTGTGATGTCTGGAGTAGATCATAAAATTGCCAGTTGGTCATGGCACGATGGA

GCTATTCTTCCCTTTGACATAGACAAGATGTAG

SEQ ID NO:9

FIGURE 4

ATGGCGTCTCAAGGCACCAAACGATCTTATGAGCAGATGGAAACTGATGGGGAACGCCAGAATGC

AACTGAAATCAGAGCATCTGTCGGAAGGATGGTGGGAGGAATCGGCCGGTTTTATGTTCAGATGT

GTACTGAGCTTAAATTAAACGACCATGAAGGGCGGCTGATTCAGAACAGCATAACAATAGAAAGG

ATGGTACTTTCGGCATTCGACGAAAGAAGAAACAAGTACCTCGAGGAGCATCCCAGTGCTGGGAA

AGACCCTAAGAAAACGGGAGGCCCGATATACAGAAGGAAAGATGGGAAATGGATAAGAGAACTCA

TCCTCCATGATAAAGAGGAAATCATGAGGGTCTGGCGTCAGGCCAACAATGGTGAAGATGCTACT

GCTGGTCTTACCCATATGATGATCTGGCACTCCAATCTCAATGACACCACATACCAAAGAACAAG

GGCTCTTGTTCGGACTGGGATGGATCCCAGAATGTGCTCTCTGATGCAAGGATCAACCCTCCCAC

GGAGATCTGGAGCTGCCGGTGCTGCAGTAAAAGGTGTTGGAACAATGATAATGGAACTCATCAGG

ATGATCAAACGCGGGATAAATGATCGAAATTTCTGGAGAGGTGAAAATGGTCGAAGAACCAGAAT

TGCTTATGAAAGAATGTGCAATATCCTCAAAGGGAAATTTCAAACAGCAGCACAACGGGCTATGA

TGGACCAAGTGAGGGAGGGCCGCAATCCTGGAAATGCTGAGATTGAGGATCTCATTTTCTTGGCA

CGATCAGCACTCATTTTGAGAGGATCAGTAGCCCATAAATCATGCCTACCTGCCTGTGTTTATGG

CCTTGCAGTAACCAGTGGGTATGACTTTGAGAAGGAAGGATACTCTCTGGTTGGGATTGATCCTT

TCAAACTACTCCAGAACAGCCAAATTTTCAGTCTAATCAGACCGAAAGAAAATCCAGCACACAAG

AGCCAGTTGGTGTGGATGGCATGCCATTCTGCAGCATTTGAGGACCTGAGAGTTTTGAATTTCAT

TAGAGGAACAAAAGTAATCCCAAGAGGACAGTTGGCAACCAGAGGAGTGCAGATTGCTTCAAATG

AAAACATGGAGACAATAGATTCTAGCACACTCGAACTGAGAAGCAGATATTGGGCAATAAGGACC

AGAAGTGGAGGAAACACCAGTCAACAGAGAGCATCTGCAGGACAGATAAGTGTGCAACCTACTTT

CTCAGTGCAGAGAAATCTTCCCTTTGAAAGAGCAACCATTATGGCTGCATTTACTGGGAACACTG

AGCGGAGGACTTCCGACATGAGAACGGAAATCATAAGGATGATGGAAAATGCCAAATCAGAAGAT

GTGTCTTTCCAGGGGCGGGGAGTCTTCGAGCTCTCGGACGAAAAGGCAACGAACCCGATCGTGCC

TTCCTTTGACATGAGCAATGAAGGGTCTTATTTCTTCGGAGACAATGCTGAGGAGTATGACAGTT

AA

SEQ ID NO:12

FIGURE 5

ATGGCGTCTCAAGGCACCAAACGATCTTATGAGCAGATGGAAACTGATGGGGAACGCCAGAATGCAACT

GAAATCAGAGCATCTGTCGGAAGGATGGTGGGAGGAATCGGCCGGTTTTATGTTCAGATGTGTACTGAG

CTTAAACTAAACGACCATGAAGGGCGGCTGATTCAGAACAGCATAACAATAGAAAGGATGGTACTCTCG

GCATTCGACGAAAGAAGAAACAAGTATCTCGAGGAGCATCCCAGTGCTGGAAAGACCCTAAGAAAACG

GGAGGCCCGATATACAGAAGGAAAGATGGGAAATGGATGAGAGAACTCATCCTCCATGATAAAGAAGAA

ATCATGAGGATCTGGCGTCAGGCCAACAATGGTGAAGACGCTACTGCTGGTCTTACTCATATGATGATC

TGGCACTCCAATCTCAATGACACCACATACCAAAGAACAAGGGCTCTTGTTCGGACTGGGATGGATCCC

AGAATGTGCTCTCTGATGCAAGGCTCAACCCTCCCACGGAGATCTGGAGCCGCTGGTGCTGCAGTAAAA

GGTGTTGGAACAATGGTAATGGAACTCATCAGAATGATCAAACGCGGGATAAATGATCGGAATTTCTGG

AGAGGTGAAAATGGTCGAAGAACCAGAATTGCTTATGAAAGAATGTGCAATATCCTCAAAGGGAAATTT

CAGACAGCAGCACAACGGGCTATGATGGACCAGGTGAGGGAAGGCCGCAATCCTGGAAACGCTGAGATT

GAGGATCTCATTTTCTTGGCACGATCAGCACTTATTTTGAGAGGATCAGTAGCCCATAAATCATGCCTA

CCTGCCTGTGTTTATGGCCTTGCAGTAACCAGTGGGTATGACTTTGAGAAGGAAGGATACTCTCTGGTT

GGAATTGATCCTTTCAAACTACTCCAGAACAGCCAAATTTTCAGTCTAATCAGACCGAAAGAAAACCCA

GCACACAAGAGCCAGTTGGTGTGGATGGCATGCCATTCTGCAGCATTTGAGGACCTGAGAGTTTTGAAT

TTCATTAGAGGAACCAAAGTAATCCCAAGAGGACAGTTAGCAACCAGAGGAGTGCAAATTGCTTCAAAT

GAAAACATGGAGACAATAGATTCTAGCACACTCGAACTGAGAAGCAAATATTGGGCAATAAGGACCAGA

AGTGGAGGAAACACCAGTCAACAGAGAGCATCTGCAGGACAGATAAGTGTGCAACCTACTTTCTCAGTG

CAGAGAAATCTTCCCTTTGAAAGAGCAACCATTATGGCTGCATTCACTGGGAACACTGAAGGGAGGACT

TCCGACATGAGAACGGAAATCATAAGGATGATGGAAAATGCCAAATCAGAAGATGTGTCTTTCCAGGGG

CGGGGAGTCTTCGAGCTCTCGGACGAAAAGGCAACGAACCCGATCGTGCCTTCCTTTGACATGAGCAAT

GAAGGGTCTTATTTCTTCGGAGACAATGCTGAGGAGTTTGACAATTAA

SEQ ID NO:13

FIGURE 6